

In the Claims

Please amend the claims as follows:

51. (Currently amended) A monoclonal antibody or active fragment of the monoclonal antibody that specifically reacts with a human or a mouse FAS ligand, wherein the antibody is produced by any one of hybridoma cell lines deposited as Accession Nos. FERM BP-5044 (Hybridoma NOK1), FERM BP-5045 (Hybridoma NOK 2), FERM BP-5046 (Hybridoma NOK3), FERM BP-5047 (Hybridoma NOK 4), FERM BP-5048 (Hybridoma NOK5) and FERM BP-5334 (Hybridoma KAY-10) in National Institute of Bioscience and Hyman-Technology, Agency of Industrial Science and Technology, wherein the active fragment is F(ab')₂, Fab', Fab, Fv or recombinant Fv,

and wherein the antibody produced by any one of the hybridoma cell lines deposited as Accession Nos. FERM BP-5044 (Hybridoma NOK1), FERM BP-5045 (Hybridoma NOK 2), FERM BP-5046 (Hybridoma NOK3), FERM BP-5047 (Hybridoma NOK 4) and FERM BP-5048 (Hybridoma NOK5) or active fragment of the monoclonal antibody reacts specifically with a human Fas ligand,and said antibody or fragment thereof inhibits apoptosis more than a control FAS-Ig chimera at a concentration of 0.01 - 8 µg/ml,

and further wherein the antibody produced by the hybridoma cell line deposited as Accession No. FERM BP-5334 (Hybridoma KAY-10) or active fragment of the monoclonal antibody reacts specifically with the Fas ligands of cells derived from the B6 mouse and C3H mouse.

Claim 52 (Previously canceled)

53. (Currently amended) The monoclonal antibody or active fragment of the monoclonal antibody according to Claim 51, wherein the antibody ~~of fragment~~ produced by any one of the hybridoma cell lines deposited as Accession Nos. FERM BP-5044 (Hybridoma NOK1), FERM BP-5045 (Hybridoma NOK 2), FERM BP-5046 (Hybridoma NOK3), FERM BP-5047 (Hybridoma NOK 4) and FERM BP-5048 (Hybridoma NOK5) can inhibit the apoptosis of Fas-expressed cells induced by a soluble human Fas ligand at an apoptosis inhibition rate of at least 90%, said apoptosis inhibition rate meaning a survival rate of target cells, to which an antibody has been added, in a cytotoxic reaction test in which a soluble human Fas ligand contained in a 12-fold dilution of a culture supernatant of Fas ligand gene-transfected cells are used as an effector molecule, and Fas gene-transfected cells are used as target cells, and both are reacted in a reaction system of 100 µl in a 96-well plate to determine the survival rate of the target cells after 16 hours using a reagent for detecting viable cell numbers.

54. (Currently amended) The monoclonal antibody or active fragment ~~thereof~~ of the monoclonal antibody according to claim ~~59~~ 53, wherein the survival rate of the target cells can be enhanced to at least 90% when the soluble human Fas ligand contained in the 12-fold dilution of the culture supernatant of the Fas ligand gene-transfected cells is used as the effector molecule in an amount of 25 µl in terms of such a dilution, the Fas gene-transfected cells (Fas/WR19L) are used as the target cells in an amount of 50 µl in terms of its solution at a concentration of 2×10^5 cells/ml, and a culture supernatant of the hybridoma containing said monoclonal antibody is used in an amount of 25 µl to mix all these components with one another, thereby conducting a reaction at 37°C for 16 hours.

55. (Currently amended) The monoclonal antibody or active fragment ~~thereof~~ of the monoclonal antibody according to Claim 51, wherein with respect to the physiological reaction between the Fas ligand and Fas, the antibody produced by any one of hybridoma cell lines deposited as Accession Nos. FERM BP-5044 (Hybridoma NOK1), FERM BP-5045 (Hybridoma NOK 2), FERM BP-5046 (Hybridoma NOK3), FERM BP-5047 (Hybridoma NOK 4) and FERM BP-5048 (Hybridoma NOK5) can inhibit a physiological reaction of a human Fas ligand, but not inhibit a physiological reaction of a mouse Fas ligand.

56. (Currently amended) The monoclonal antibody or active fragment ~~thereof~~ of the monoclonal antibody according to claim 51, which can affinity-purify a human or mouse Fas ligand present in a culture supernatant of Fas ligand-expressed cells.

57. (Currently amended) The monoclonal antibody or active fragment ~~thereof~~ of the monoclonal antibody according to claim 51, which can immunoprecipitate Fas ligand molecules on Fas ligand-expressed cell surfaces or soluble Fas ligand molecules secreted in a culture solution.

58. (Currently amended) A method of detecting a human or mouse Fas ligand in a solution, which comprises combining a plurality of monoclonal antibodies against Fas ligand according to claim 51.

59. (Currently amended) The detection method according to Claim 58, wherein one of the monoclonal antibodies is immobilized on a carrier another monoclonal antibody is labeled

with a labeled compound, the carrier on which the monoclonal antibody has been immobilized is brought into contact with a solution of a specimen which is considered to contain a human or mouse Fas ligand, thereby adsorbing the specimen, and the adsorbed specimen is detected by the monoclonal antibody labeled with the labeled compound.

60. (Currently amended) The detection method according to Claim 59, wherein a purified monoclonal antibody of IgM type is immobilized on a carrier, and a human or mouse Fas ligand in a solution is detected by a biotin-labeled monoclonal antibody of IgG type.

61. (Currently amended) A kit for use in detecting a human or mouse Fas ligand, comprising in combination a plurality of monoclonal antibodies against Fas ligand according to claim [55] 51.

62. (Currently amended) The monoclonal antibody or active fragment ~~thereof~~ of the monoclonal antibody according to claim ~~55~~ 51, which can affinity-purify a soluble human or mouse Fas ligand present in a culture supernatant of human or mouse Fas ligand-expressed cells.

Claims 63-72 (Previously Canceled)

73. (Currently amended) A monoclonal antibody which specifically reacts with a human or mouse Fas ligand, or an active fragment of the monoclonal antibody according to claim 51, wherein the antibody is produced by a process comprising the steps of (1) immunosensitizing an animal, which does not express a functional Fas molecule, with a Fas ligand molecule or Fas

ligand-expressing cells, (2) preparing antibody-producing cells from the immunosensitized animal to form a suspension of the antibody-producing cells, (3) mixing the suspension of the antibody-producing cells with myeloma cells to fuse both cells, (4) diluting the fused cells with a medium that does not favor unfused myeloma cells so that the fused cells are cultured, thereby sorting hybridomas produced by the fusion of the antibody-producing cells with the myeloma cells, (5) determining whether antibodies secreted in a culture supernatant containing the hybridomas are against the desired antigen, (6) cloning a series of cells in culture wells in which cells secreting the desired antibodies exist, (7) selecting a clone from which the desired antibody is secreted, (8) conducting a cloning again to establish a hybridoma clone which secretes monoclonal antibody against antigen, and (9) preparing the monoclonal antibody from a culture supernatant of the hybridoma or ascites fluid obtained by intraperitoneally administering the hybridoma to a mouse.

74. (Previously amended) The monoclonal antibody or the active fragment thereof of the monoclonal antibody according to Claim 73, wherein the animal is a rodent belonging to MRL ~~lpr/lpr~~lpr/lpr mice lpr/lpr mice.

75. (Previously amended) The monoclonal antibody or the active fragment thereof of the monoclonal antibody according to Claim 73, wherein the animal is a rodent belonging to MRL gld mice.

Claims 76-153 (Previously Canceled)

154. (Currently amended) A process for producing monoclonal antibodies specifically reacting with a human or mouse FAS ligand according to Claim 51, which comprises the steps of (1) immunosensitizing a rodent, which does not express a functional Fas molecule, with a Fas ligand molecule or Fas ligand-expressing cells, (2) preparing antibody-producing cells from the immunosensitized animal to form a suspension of the antibody-producing cells, (3) mixing the suspension of the antibody-producing cells with myeloma cells to fuse both cells, (4) diluting the fused cells with a medium that does not favor unfused myeloma cells so that the fused cells are cultured, thereby sorting hybridomas produced by the fusion of the antibody-producing cells with the myeloma cells, (5) determining whether antibodies secreted in a culture supernatant containing the hybridomas are against the desired antigen, (6) cloning a series of cells in culture wells in which cells secreting the desired antibodies exist, (7) selecting a clone from which the desired antibody is secreted, (8) conducting a cloning again to establish a hybridoma clone which secretes a monoclonal antibody against antigen, and (9) preparing the monoclonal antibody from a culture supernatant of the hybridoma or ascites fluid obtained by intraperitoneally administering the hybrid to a mouse.